Keep-it-Easy System

User Manual

Edition: Ver1.0

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Notice

Thank you for purchasing the **Keep-it-Easy System** software which is a data management software for our ECG monitor. Before use, please read this manual carefully.

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1. General Introduction

Keep-it-Easy System is an application software running on a computer in conjunction with the handheld ECG monitor. You can use the software on your computer to analyze, display, replay, export, import and print data transferred from the ECG monitor.

2. Requirements For Running Keep-it-Easy System

To run the Keep-it-Easy System, your computer requires a hardware configuration with a minimum of PIII500 CPU, 64M internal memory, CD-ROM drive, a minimum of a 10G hard disc.

Requirement for Operating System:

Microsoft Windows 2000/XP/Vista operating system.

3. Installation

3.1 Insert the attached installation CD into your computer's CD-ROM driver.

3.2 Single click the "setup.exe" file to access the installing interface as in Fig.3-1.

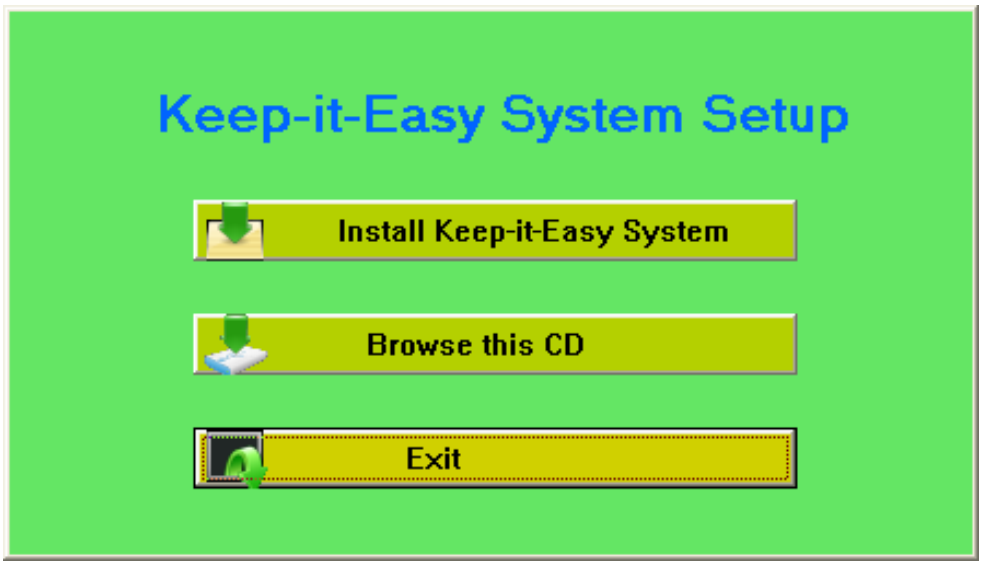

Fig.3-1

3.3 Click the "**Install Keep-it-Easy System**" button to install the software. Refer to steps 3.3.1 ~3.3.6 for installation instructions:

3.3.1

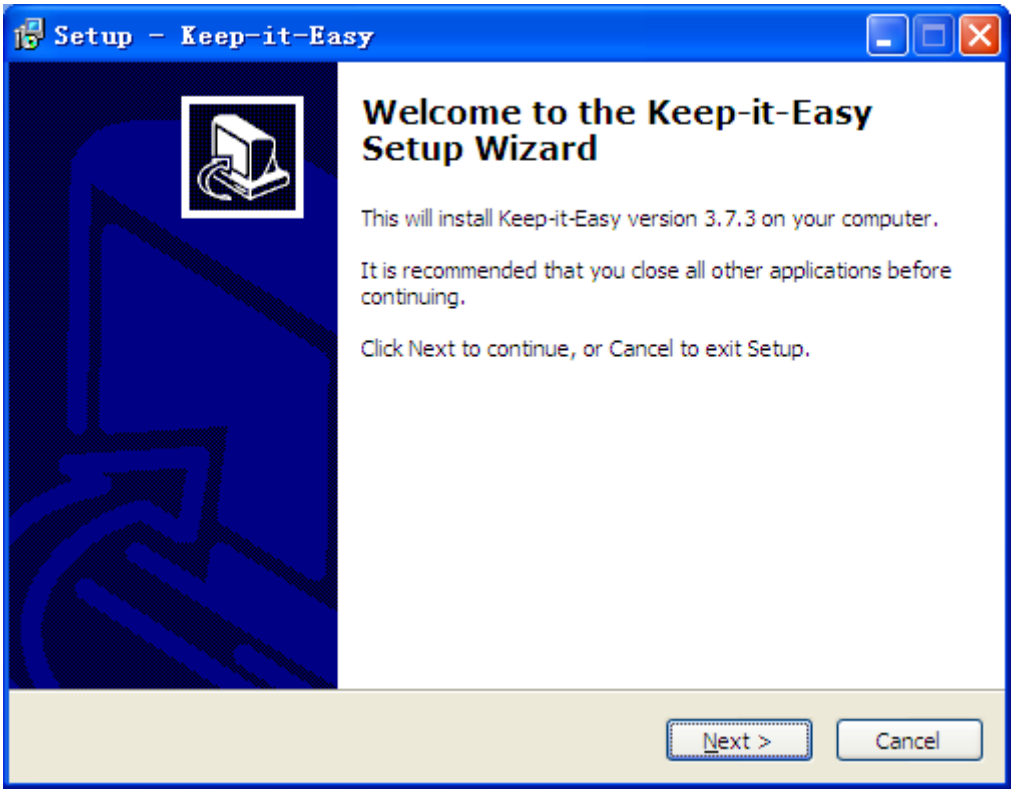
Setup - Keep-it-Easy
Welcome to the Keep-it-Easy Setup Wizard
This will install Keep-it-Easy version 3.7.3 on your computer.
It is recommended that you close all other applications before continuing.
Click Next to continue, or Cancel to exit Setup.
Next >
Cancel

Fig.3-2 Click “Next>”

3.3.2

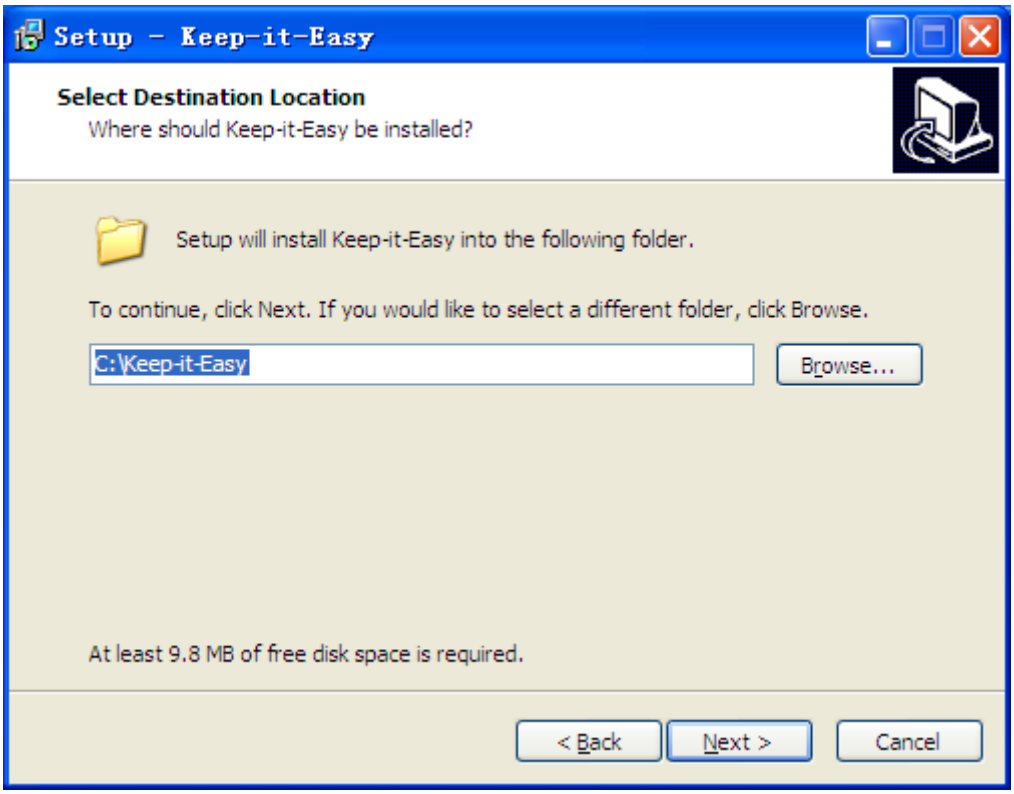
Setup - Keep-it-Easy
Select Destination Location
Where should Keep-it-Easy be installed?
Setup will install Keep-it-Easy into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Keep-it-Easy
Browse...
At least 9.8 MB of free disk space is required.
< Back
Next >
Cancel

Fig.3-3 Click “Next>”

3.3.3

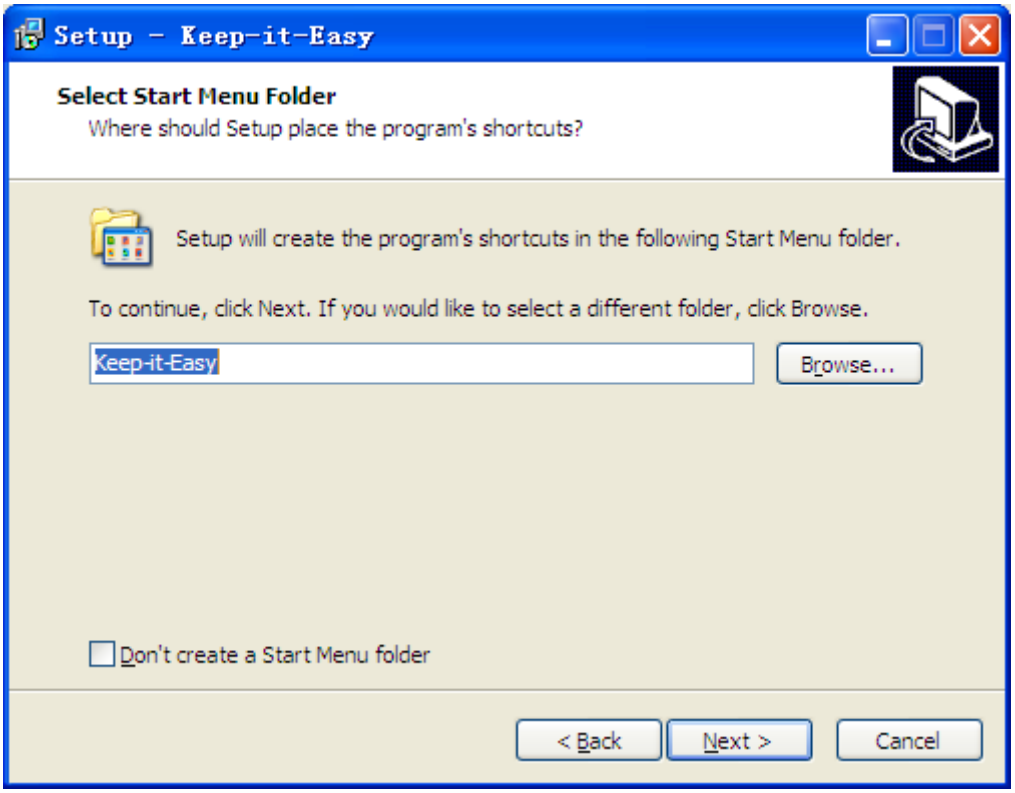
Setup - Keep-it-Easy
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
Keep-it-Easy
Browse...
Don't create a Start Menu folder
< Back
Next >
Cancel

Fig.3-4 Click “Next>”

3.3.4

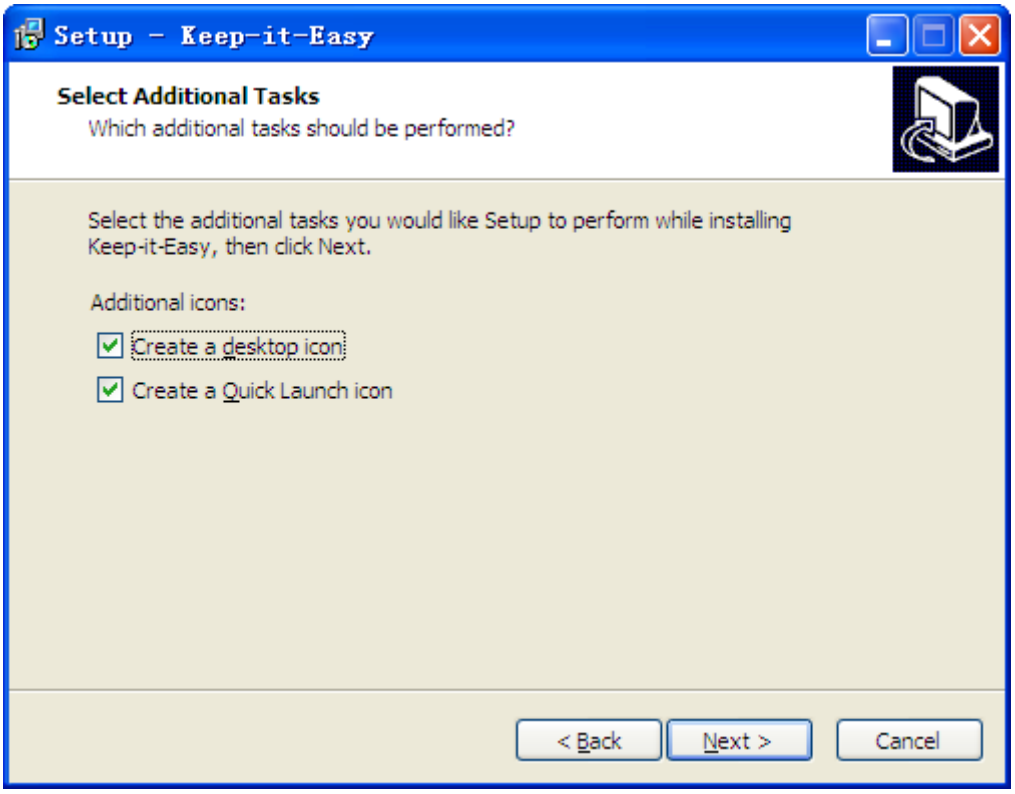
Setup - Keep-it-Easy
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing Keep-it-Easy, then click Next.
Additional icons:
Create a desktop icon
Create a Quick Launch icon
< Back
Next >
Cancel

Fig.3-5 Click “Next>”

3.3.5

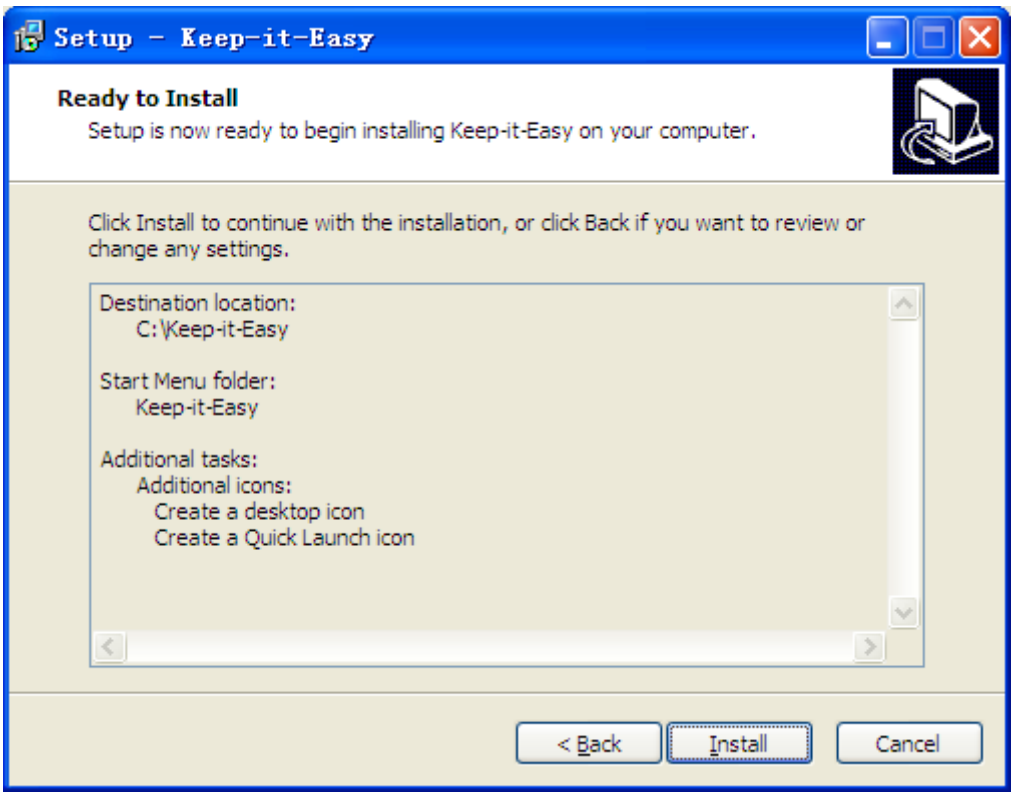
Setup - Keep-it-Easy
Ready to Install
Setup is now ready to begin installing Keep-it-Easy on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\Keep-it-Easy
Start Menu folder:
Keep-it-Easy
Additional tasks:
Additional icons:
Create a desktop icon
Create a Quick Launch icon
< Back
Install
Cancel

Fig.3-6 Click “Install”

3.3.6

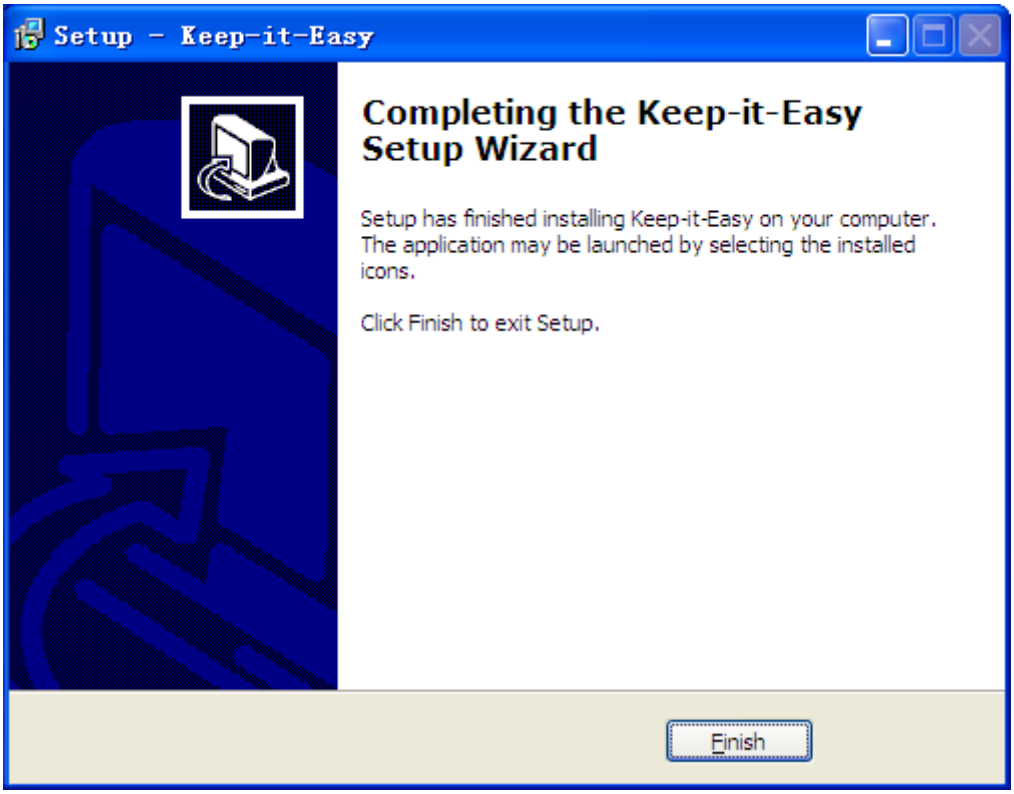
Setup - Keep-it-Easy
Completing the Keep-it-Easy Setup Wizard
Setup has finished installing Keep-it-Easy on your computer. The application may be launched by selecting the installed icons.
Click Finish to exit Setup.
Finish

Fig.3-7 Click “Finish”

In the interface as in Fig.3-7, click the “Finish” button to finish the installation steps.

3.3.7 After finishing installation of the software, a shortcut icon “Keep-it-Easy” will appear on your computer’s desktop, refer to Fig.3-8. You can run it by double-clicking the shortcut icon or by clicking the “Keep-it-Easy” menu item in the “Start” menu of your PC.

Fig. 3-8

4. Software Operation

The Keep-it-Easy system is an application software running on a computer together with the ECG monitor. It will only allow one ECG monitor to be connected to the computer for data transmission at a time.

You can use the software for reviewing and analyzing data that was previously uploaded to it without having an ECG monitor attached to your computer.

The required computer resolution is 1024×768 or higher.

4.1 Main menu

Double-click the “Keep-it-Easy” icon to run the software; the main menu will be displayed as shown in Fig. 4-1.

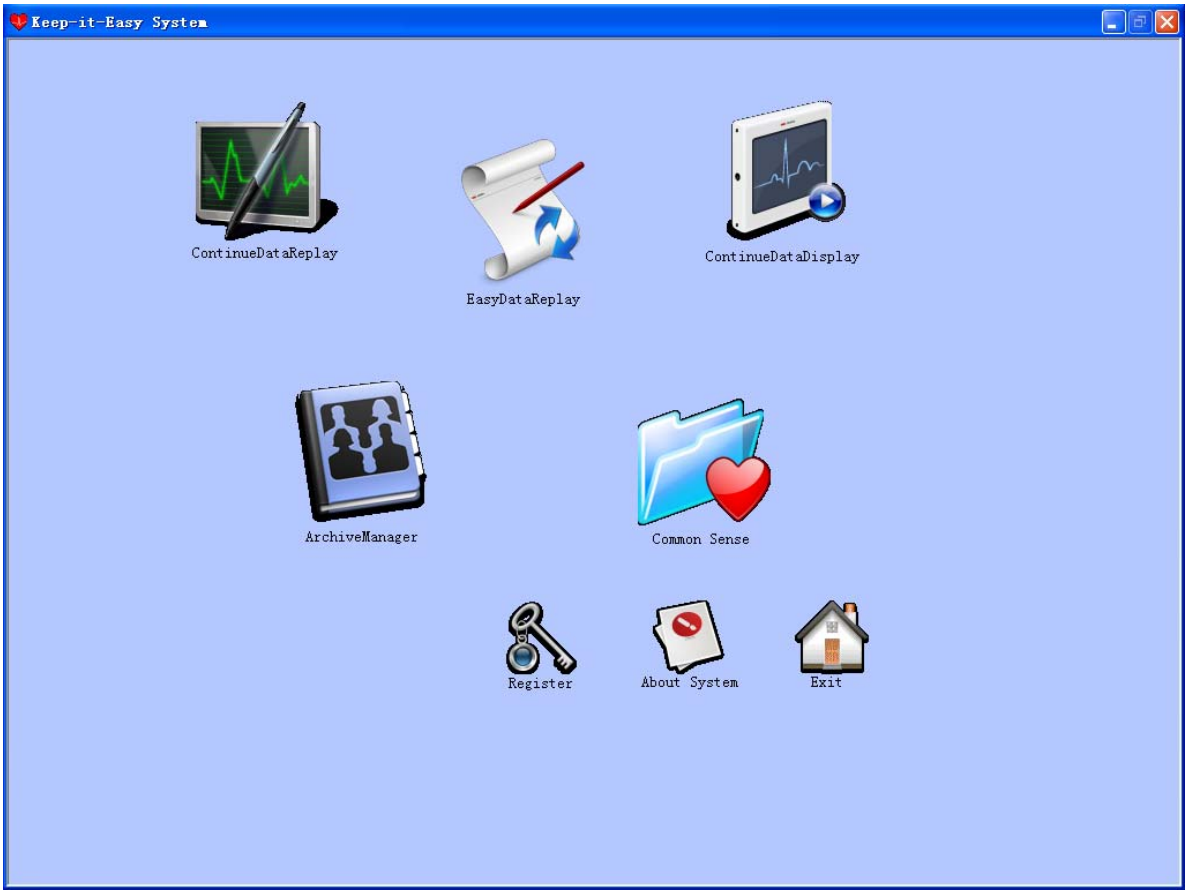

Fig. 4-1

Description of Fig. 4-1:

： Continue Data Replay

By accessing this menu item, you can review data and waveform in continuous measurement mode.

： Continue Data Display

By accessing this menu item, you can view real-time data and waveform.

： Easy Data Replay

By accessing this menu item, you can review data and waveform in easy mode.

： Archive Manager

By accessing this menu item, you can manage users' archives.

： Common Sense

By accessing this menu item, you can learn some general ECG knowledge.

： Register (Optional)

By accessing this menu item, you can activate the function of the analysis of arrhythmia type by inputting correct register code.

： About System

By accessing this menu item, you can get some information about the software system.

： Exit

By clicking the “Exit” icon, you will exit from the software system.

4.2 Main Functions Introduction

4.2.1 Archive Manager

Click the icon in the main menu, the window displayed in Fig. 4-2 will pop up. In this window, the user can modify the patient’s information including name, gender, birth date and so on, but the patient ID cannot be modified. The user can also delete any existing patient’s information.

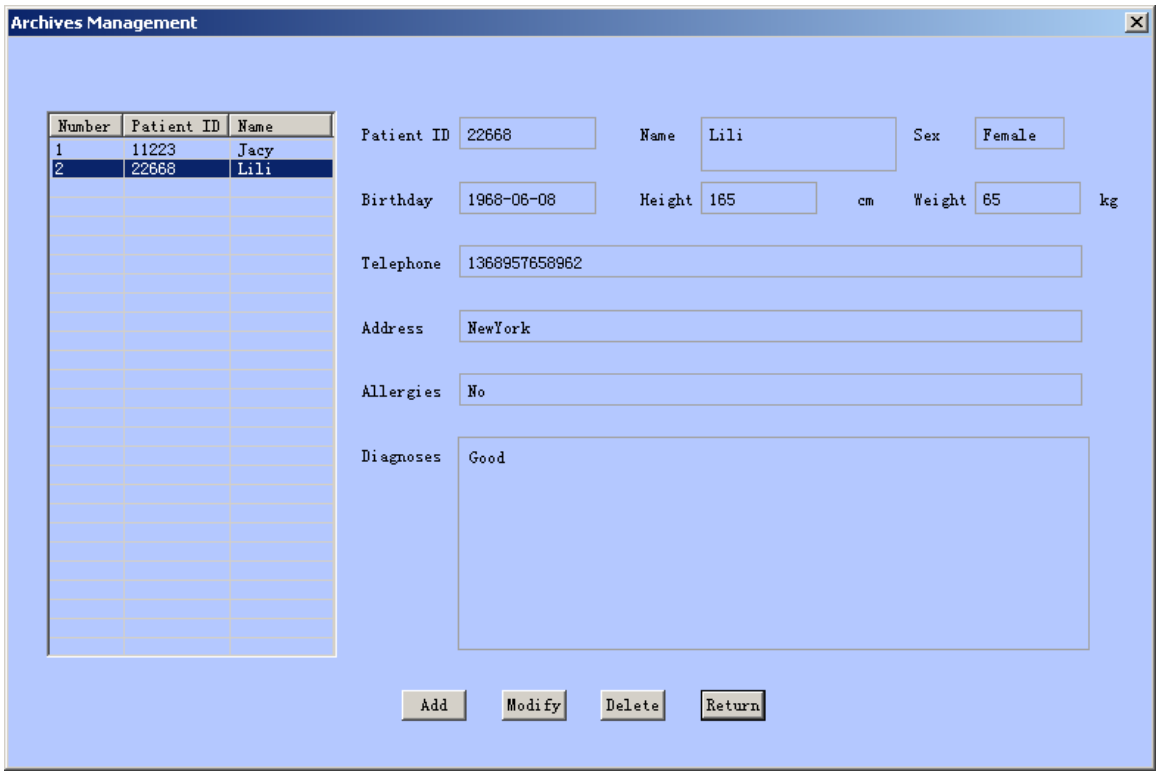

Fig. 4-2

Screen Description:

On the Archives Management screen, the user can modify and delete any existing patient information as well as add new ones. The table on the left area of the screen is the Patient list; The right area of the screen is the detailed patient information for the selected stored patient archive. The following are descriptions of each field:

Patient ID: Displays the patient ID, the length of Patient ID is less than 10 characters.

Name: Displays the patient’s name; the length of the name should less than 40

characters.

Sex: Displays the gender of the patient. Select Male or Female from the drop-down list.

Birthday: Displays the patient birth date, the length of the birthday should less than 40 characters.

Height: Displays the patient's height; the length of the height should less than 10 characters.

Weight: Displays the patient's weight; the length of the weight should less than 10 characters.

Telephone: Patient's telephone number; the length of the phone number should less than 40 characters.

Address: Patient's address; the length of the address should less than 60 characters.

Allergies: Description of patient's allergy symptoms; the length of the allergy field should less than 60 characters.

Diagnoses: Description of ECG diagnostic result; the length of words should less than 200 characters.

Functional buttons:

Add: You can add new patient's information by pressing this button.

Modify: Modify the selected patient's information from the patient list.

Delete: Delete the patient and his/her data selected from the patient list.

Return: Exit from the current screen.

Note: The Patient ID cannot be changed once saved.

4.2.2 Continue Data Display

On the main menu, click the icon to enter the submenu interface, refer to Fig. 4-3. In this interface, the user can view the real-time data measured by the ECG monitor and save them into the PC for reviewing and management.

1. Please connect the ECG monitor to the PC well before activating this function.

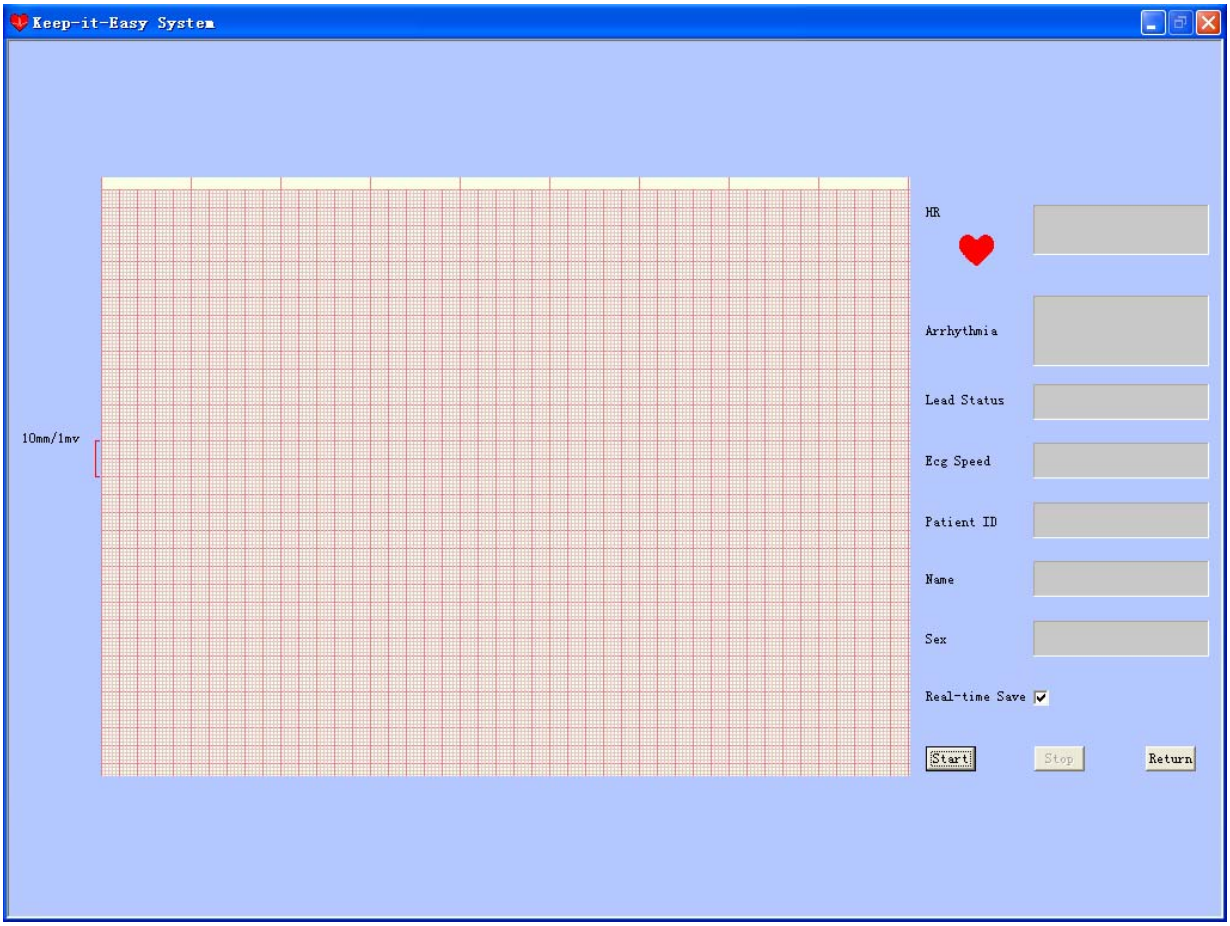

Fig. 4-3

2. To save the real-time transferred data, be sure to check the “Real-time save” check-box, or else the data will not be saved.
3. After checking the “Real-time Save” check-box, click the Start button, “Select The User” pop-up window will be displayed, refer to Fig. 4-4. select a user that you would like to save data for.

Note: If you want to save the real-time measured data, please be sure to check the “Real-time save” box in the interface as shown in Fig. 4-4, or else, the data will not be saved.

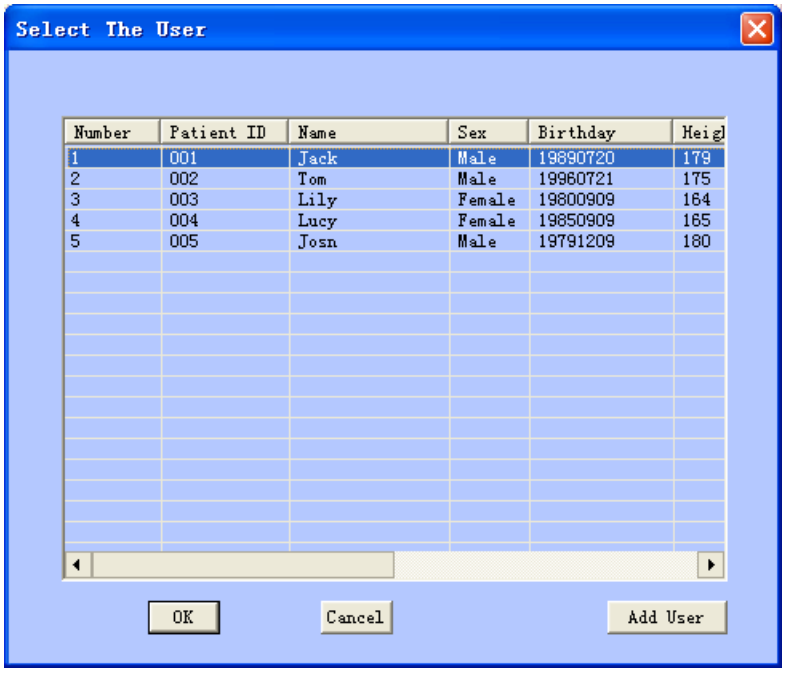

Fig.4-4

Select a patient from the table and click the “OK” button, then the data transmission will begin and the transferred data will be saved in the selected user archive. Refer to Fig.4-5.

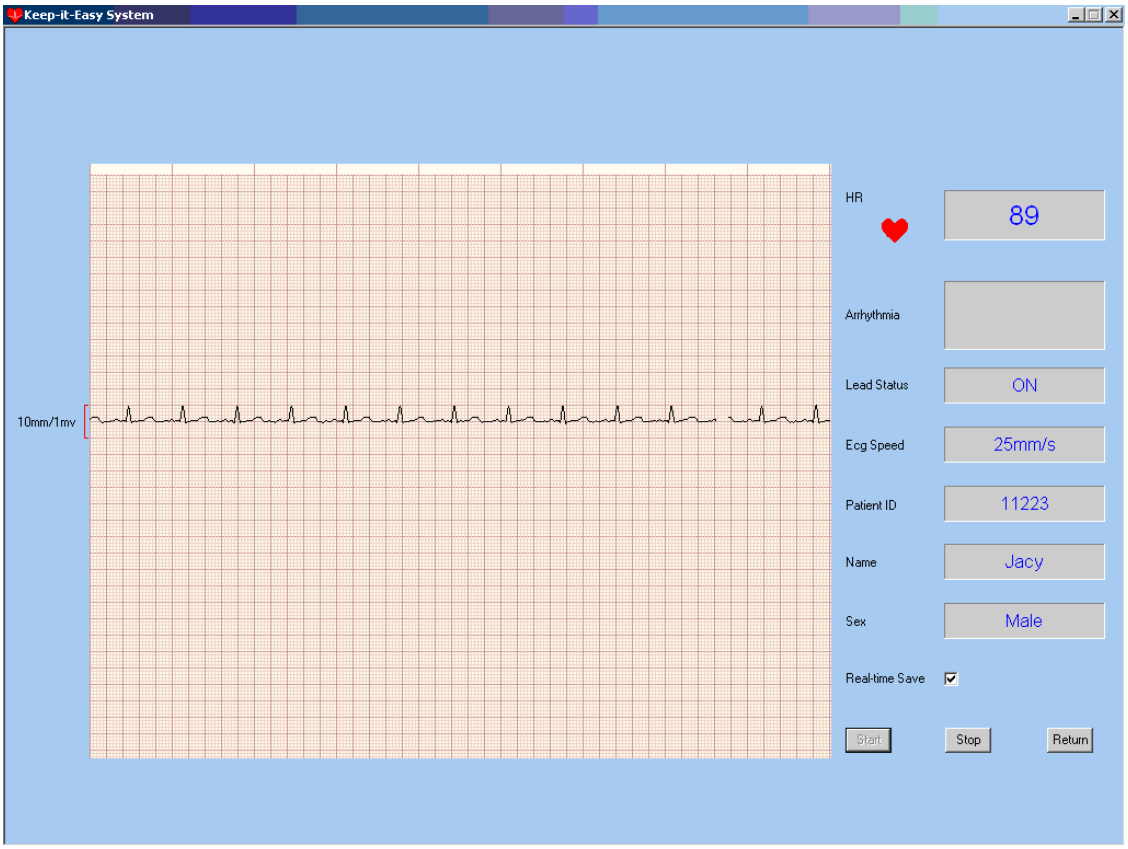

Fig.4-5

The real-time data is shown as in Fig. 4-5. “HR” is the heart rate. The area of “Arrhythmia” will display the arrhythmia analysis result if you additionally purchase the register function. “Lead Status” indicates the connection status of the current lead. “Ecg Speed” is the scan

speed of ECG waveform. The rest items are patient information.

Note: if you want to purchase the register function, please contact our company.

Functional buttons:

There are three functional buttons including Start, Stop and Return.

Start: Starts the real-time ECG recording and transmission from the ECG monitor to the software.

Stop: This button allows the user to terminate the real-time monitoring.

Return: Exit from the current screen.

If the real-time monitoring is interrupted because of any other reason, the system may prompt you with the following window as in Fig. 4-6. You can restart the transmission process by clicking the “Start” button after checking the connection between the ECG monitor and your PC.

Fig. 4-6

4.2.3 Easy Data Replay

Before performing the function, please make sure the monitor has been connected to PC with USB cable and the monitor has been activated and the power of batteries is sufficient.

Click the icon in the main interface to access its submenu interface, then click the “Read Data” button, the software system will begin to read data from the ECG monitor. Refer to Fig. 4-7.

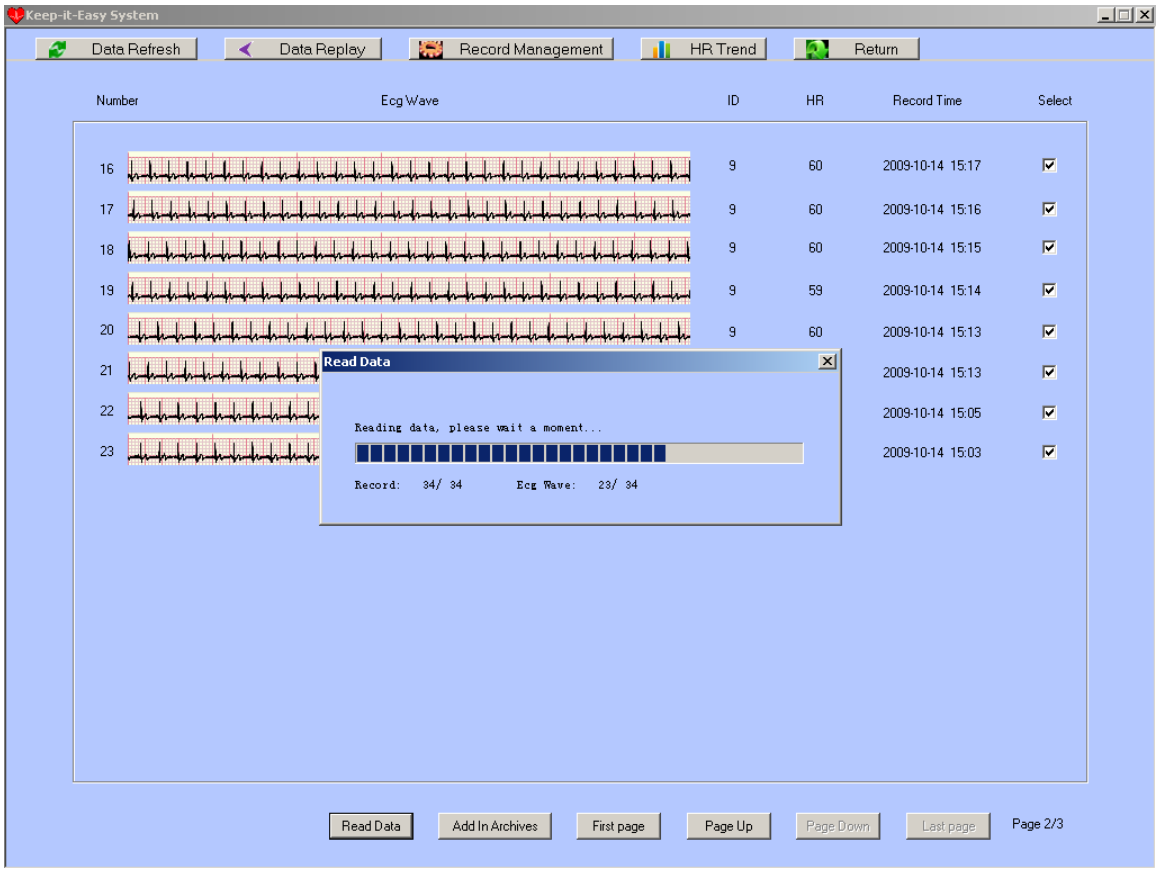

Fig. 4-7

Note: Please do not disconnect the USB cable or operate the monitor so as to keep the data transferring continually during the data transferring.

After finishing data transmission, the system may prompt that the data transmission has been finished successfully! The data that has been transferred into the software will be displayed in the left area of the interface. When the reading is finished, you can select some data item(s) and save them into archive by clicking the “Add In Archives” button. A window as shown in Fig. 4-4 will pop up, you can add new users by clicking the “Add User” button. Its specific operations are the same as the introduction in **“4.2.1 Archive Manager”**.

When there is more than one page in the software, you can click the “Page up” or “Page down” button to get to the previous or the next page if the data items are too many for one page. By clicking the button “First page” or “Last page” you can directly get to the first page or last page.

Note: Please make sure to save the transferred data items into the software by clicking the “Add In Archives” button, or else, the data may fail to be saved into the software when exiting from the current interface.

4.2.4 Continue Data Replay

4.2.4.1 Data Replay

Click the “ ” icon to enter the submenu interface. And then click the “Data Replay” button. The interface as shown in Fig. 4-8.

When you want to view someone’s ECG wave, select his/her archive in archives list on the right by clicking its row. And then all the ECG belonging to this user will be displayed on the left area. Every row of contractible ECG wave on the lower left displays ECG wave for 30 seconds.

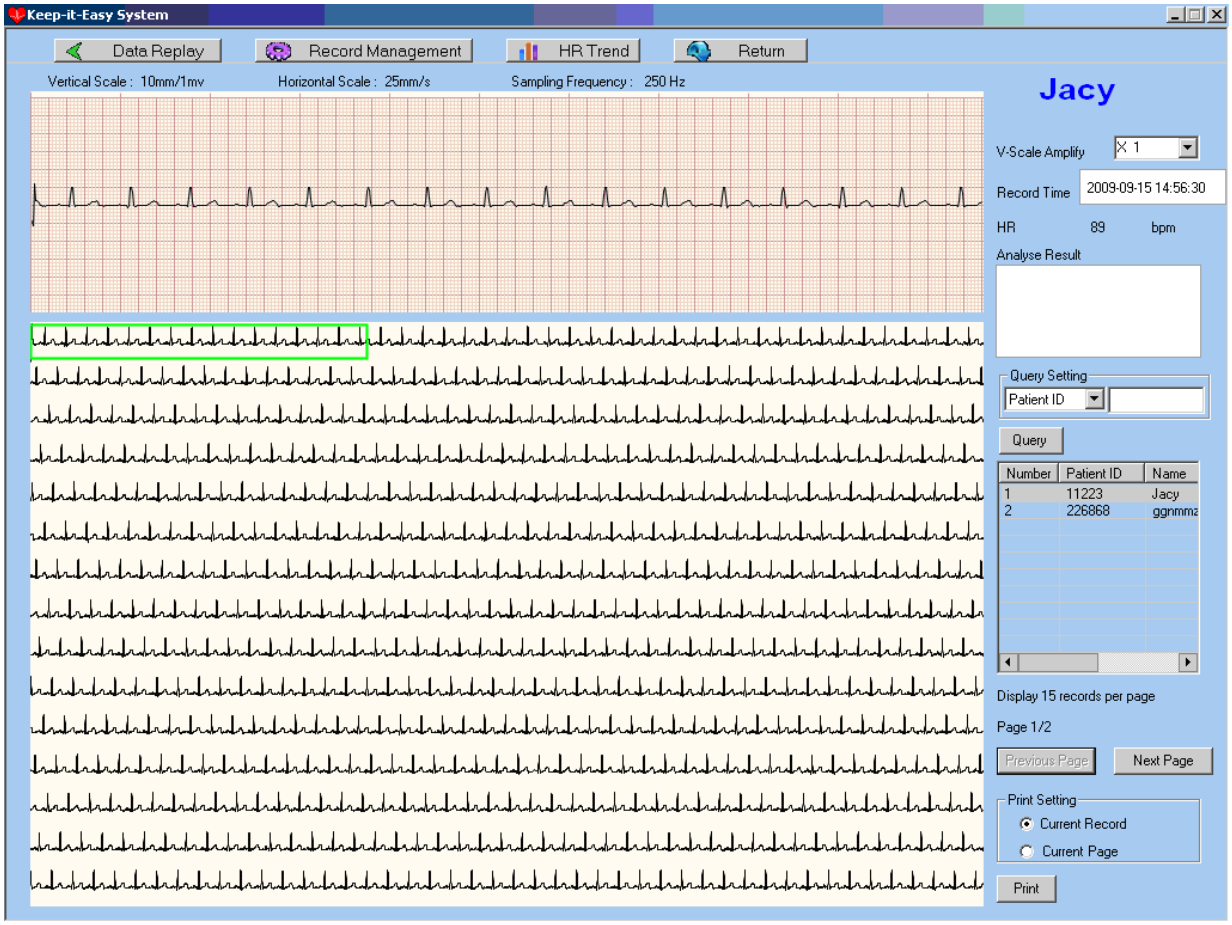

Fig. 4-8

From the interface as shown in Fig.4-8, the user may review the ECG wave measured in the continue mode. For example as in Fig.4-8, the user can use a green selecting box to select a section of ECG wave. Shift mouse and click any dot in ECG wave can pitch on the section of ECG wave, then its amplificatory wave will be displayed on the above wave box and its corresponding record information (its heart rate value and measuring “Time” of the original record) will be shown on the right area of the interface.

V-scale Amplify: The user can review the different proportional display of the section of ECG wave by setting the display scale. By clicking the “Previous Page” or the “Next Page” button, the user can view the previous or next page data items.

Additionally, measurement analysis and patient(s)' information also may be displayed on the right area.

What' s more, the user can print the current selected record and ECG wave or the current selected page of records and ECG wave by clicking the "Print" button.

4.2.4.2 Record Management

Click the "Record Management" button in the interface as shown in Fig.4-8 to switch to the "Record Management" interface, such as in Fig.4-9.

Select a patient archive whose data you want to view in the table on the left top of the interface, the data items belonging to this patient will appear in the table on the lower left of the interface. Refer to Fig.4-9.

You can also select a data item that you want to view from the list that located in the left area of the interface, then the corresponding ECG wave will be displayed on the right area. Every data item displays ECG wave for 30 seconds. Refer to Fig.4-9.

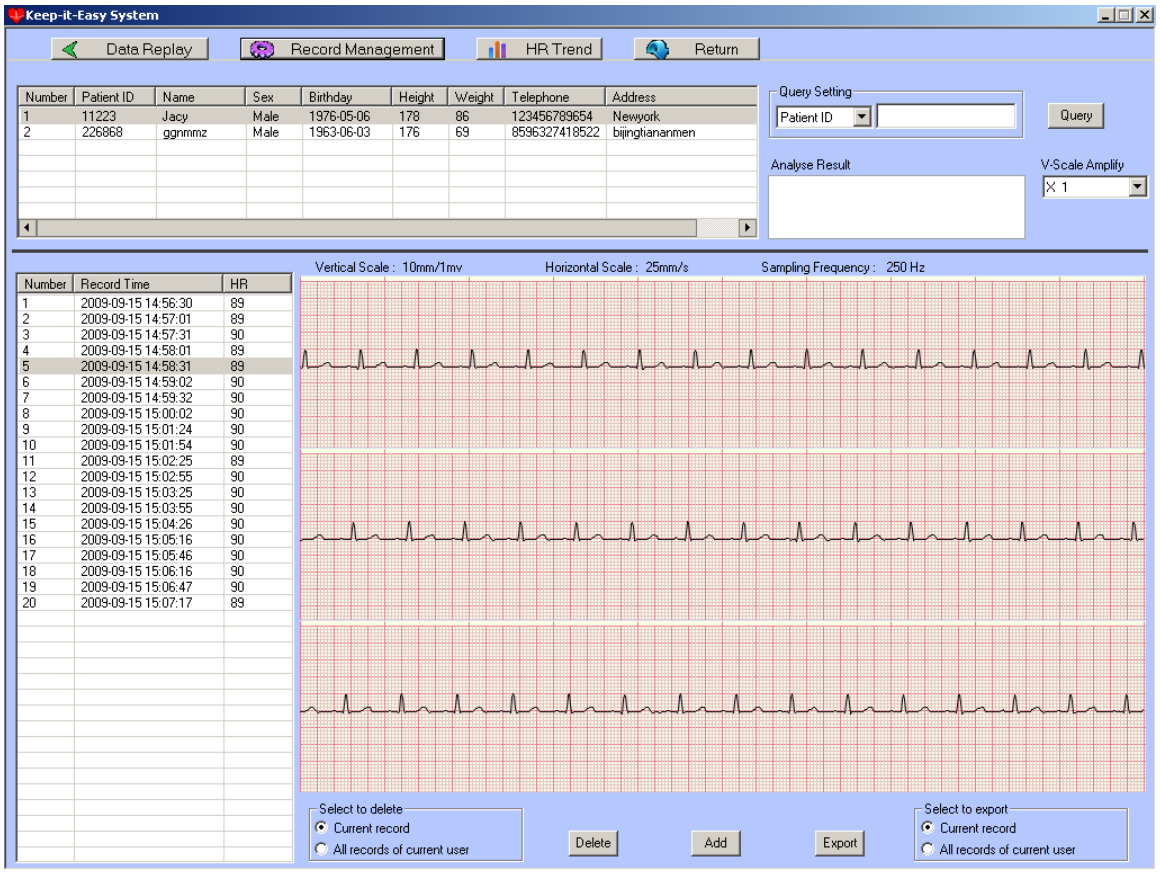

Fig.4-9

When there are too many users in the archive list, the user can use the function of "Query" to search the user archive that is needed. Two query conditions are provided by the system, Patient ID and Name. Input the correct patient ID or name into the edit-box on the right,

then click the “Query” button to search the corresponding patient.

Functional buttons:

Delete: The user can delete the current record(s) of the current user by clicking this button.

Add: By clicking this button, the user can import the record(s) that has been saved on the PC to the software for reviewing and management.

Export: By clicking this button, the user can export the current record(s) of the current user to PC with the extension of .dnt or .bmp.

4.2.4.3 Heart Rate Trend

Click the “HR Trend” button in the interface as shown in Fig.4-8 to enter the following interface as shown in Fig.4-10.

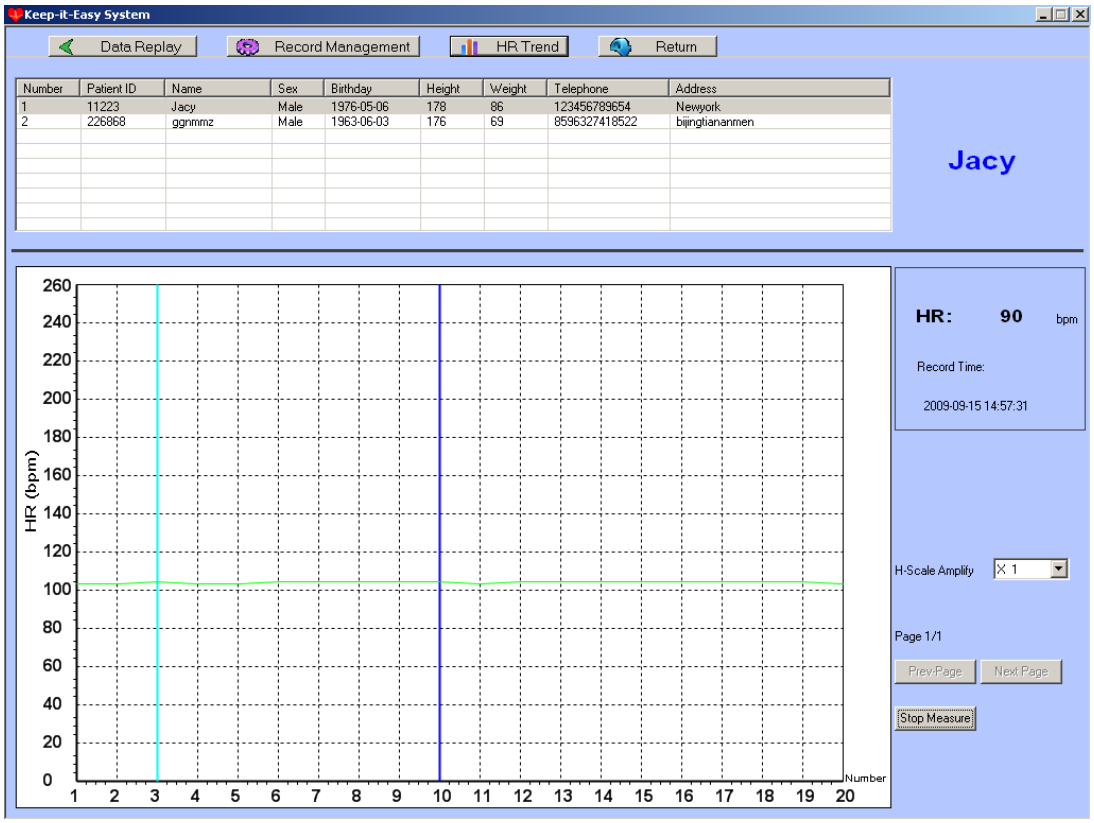

Fig.4-10

Description of Fig.4-10:

The patient information table is above HR trend curve. Select the target in it, and then click the “Measure” button, according to record number and average heart rate value a trend curve is drawn in trend curve area. The ordinate value of heart rate trend curve expresses heart rate value, its unit is “bpm”; the abscissa value expresses record number. The area on the right of trend curve is for parameter display and functional button operation.

Click the “Measure” button and shift mouse in the heart rate trend graph area, a blue staff

line will occur. Click this line in trend curve can view its corresponding record (its heart rate value and measuring “Record Time” of the original record which displays above “H-Scale Amplify”), then the staff line will become azury.

H-Scale Amplify : By clicking this combo box, the user can select the interval of steps which the abscissa value increase at. The trend curve may be compressed to display and the number value corresponding to the mark in abscissa will increase at the interval of 1, 5 or 10 steps.

By clicking the “Prev-page” or “Next page” button, you can reviewing the previous or next page of HR trend chart.

4.2.5 Common Sense

You can obtain the troubleshooting instructions and general knowledge about ECG by clicking the icon in the main menu interface.

4.2.6 Register

The arrhythmia type analysis function is optional and not included in the standard package. If you have bought the function, you need to apply a register code which is necessary to activate the arrhythmia type analysis function.

You can see the following interface in the “Version” menu of the ECG monitor. Refer to Fig.4-11. Return the SN code to our company for Register Code, then you will gain the Register Code from us.

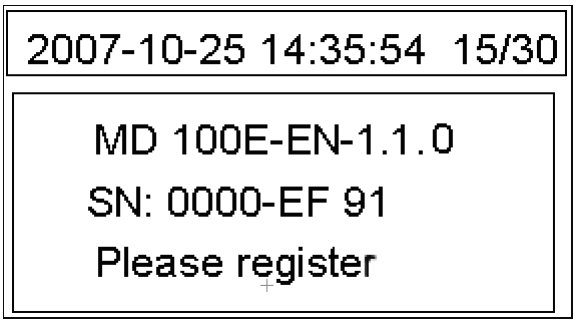

Fig. 4-11

How to activate ECG analysis function of the ECG monitor:

Access the dialog box as shown in Fig.4-12 by clicking the icon of “Register”, and input the Register Code in the editable box, then click the “OK” button.

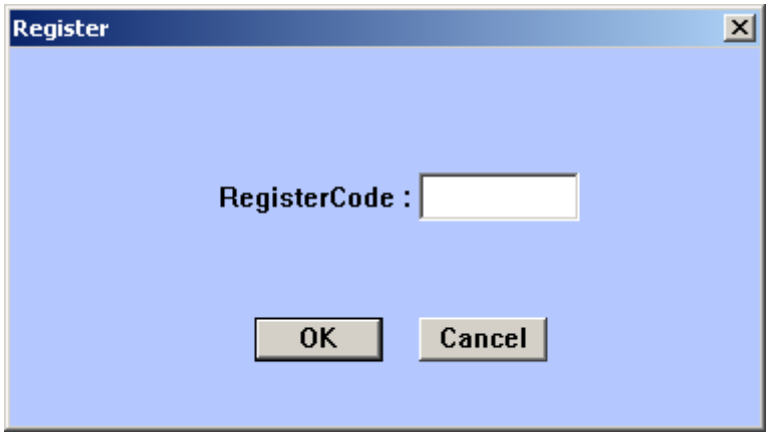

Fig. 4-12

4.2.7 About System

Click icon to access the information interface.

4.2.8 Exit

Click icon to exit from the Keep-it-Easy system.

5. Uninstall

(1). Click the “Start” menu of Windows system to find the Keep-it-Easy system program group, then click the “Uninstall” item and the following prompt will appear as in Fig.5-1. Click the “Yes” button in Fig.5-1.

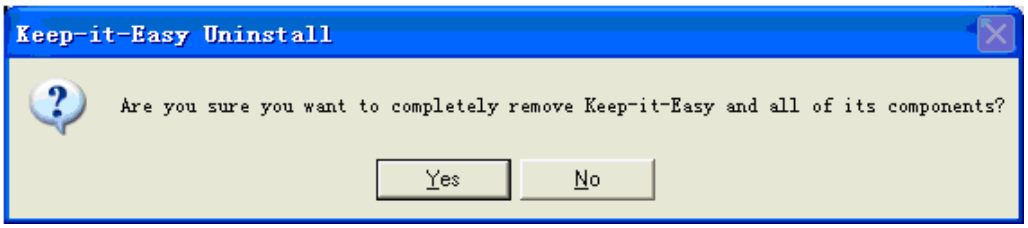

Fig. 5-1

(2). Click the “OK” button in Fig.5-2, then the uninstall will be finished.

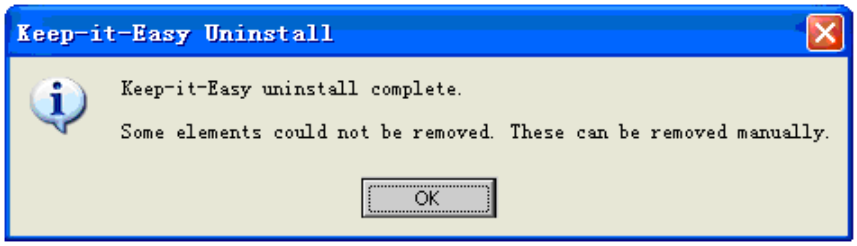
Keep-it-Easy Uninstall
Keep-it-Easy uninstall complete.
Some elements could not be removed. These can be removed manually.
OK

Fig. 5-2

Manufacturer address：
Beijing Choice Electronic Technology Co.，Ltd.
Bailangyuan Building B
Rm. 1127-1128， Fuxing Road, A36
100039 Beijing
PEOPLE’S REPUBLIC OF CHINA